Algebra 2 - Exponents Problem Set

Stasya

1. Simplify $\left(\frac{2^{\frac{3}{2}}}{3^{\frac{1}{2}}}\right)^{-2}$

2. Write an example of dimensions of a rectangle that would have an area of $32x^2y^{10}$ square units.

3. Convert $(64a^4b^2)^{\frac{1}{2}}$ to radical form and simplify your final answer.

4. Convert $\sqrt[3]{14^3}$ to rational exponent form and simplify your final answer.

5. Solve for x in $6^{4x-3} = 36^{-2x}$.

6. Simplify $(-3a^{\frac{5}{2}}b^{-4})^{-2}$

7. Simplify $\sqrt{24} - 4\sqrt{6} + 4\sqrt{54}$ completely.

8. Simplify $(3\sqrt{2} - 4\sqrt{6})^2$ completely.